



Issue 505 • 13 May 2024 www.africa-energy.com

## Mauritania excites gas, hydrogen and steel investors in a fast-evolving region

Ahead of his expected late June re-election, President Mohammed Ahmed El Ghazouani is presiding over a potentially fast-changing Mauritania that can expect new revenues from its joint GTA gas field with Senegal and potentially more long-term investment plays that exploit its minerals reserves, P2X potential and route to the sea, write Marc Howard, Waly Dione Faye and Jon Marks

ew doubt that President Mohammed Ould Cheikh Mohammed Ahmed El Ghazouani will win a comfortable, probably first round re-election when Mauritania's presidential election is held on 29 June.

Ghazouani has played a skilful hand having emerged as the country's first leader to come to power via a democratic transition since independence – albeit from the exgeneral's perch at the top of the military/security elite and at the expense of his old friend, the now imprisoned expresident Mohammed Ould Abdelaziz (AE 439, 437)

Ghazouani can point to a strong track record as Mauritania has emerged the Covid-19 pandemic as a previously

unlikely destination of choice for some investors. His administration is set to benefit from revenues for the first, 2.4m t/yr phase of the joint Mauritania/Senegal Greater Tortue Ahmeyim (GTA) liquefied natural gas (LNG) development.

Its mineral resources in high demand, there are signs that a nascent green hydrogen  $(GH_2)$  sector will avail Mauritania's global-level scales of solarity and wind speeds, and wide-open spaces, to harness renewable energy (RE) potential for major energy transition projects. The International Monetary Fund is providing support for clean energy (AE 494).

CONTINUED ON PAGE 3

#### Nigeria upstream

International majors' stopstart plans to sell Nigerian upstream assets to local players are moving forward, with regulators expected to approve one within days. Upstream actors have been frustrated by slow progress on such deals but, alongside recent sector reforms and a new licensing round, some of that annoyance may now way to guarded optimism. Adding to the positive atmosphere, the Dangote refinery continues to ramp up operations, albeit with more teething troubles.

-SEE PAGE 12

#### Hardly currency

Zimbabwe launched another new currency in April, in another effort to stabilise the economy. The ZiG is backed by gold reserves but has been met with a sceptical reception, not least because fuel payments still need to be made in US dollars, prompting bus operators and others to refuse the new notes

The lack of convertibility is another key challenge for a currency that could struggle to avoid the fate of other recent monetary failures.

-SEE PAGE 13

## Fresh financing models sought to energise transmission investments

The development of a greater variety of financing models is urgently required to support the roll-out of transmission infrastructure around Africa, both to drive domestic investments and cross-border interconnections, participants at *African Energy's AIX: Energy in Transition* meeting heard. This ranged from long-standing appeals to mobilise pension funds and other domestic sources across the continent – which could have very beneficial impacts by providing longer term local financing – as well as discussion of new instruments and ways of leveraging increased institutional appetite to support emerging independent transmission projects (ITPs) and power pools.

The AIX event heard that the building of cross-border transmission infrastructure and regional markets were critical for enabling countries to sell excess electricity to each other seamlessly through a competitive trading market.

-SEE PAGE 11



#### Issue 505 · 13 May 2024

Incisive analysis since 1998

www.africa-energy.com

#### **Editorial director**

Jon Marks

jon@africa-energy.com

#### Commissioning editor

**Dominic Dudley** 

dominic@africa-energy.com

#### **Deputy editor**

Marc Howard

m.howard@africa-energy.com

#### Hydrocarbons editor

James Gavin

james@africa-energy.com

#### African Energy staff

John Hamilton, Tonderayi Mukeredzi (Harare), Camilla Nytun, Ajay Ubhi (Head of Data)

#### Cartographer

**David Burles** 

#### Contributing editors

Martin Burdett, Waly Dione Faye (Casablanca), François Misser (Brussels), Chiwoyu Sinyangwe (Lusaka)

#### **Editor emeritus**

Thalia Griffiths

#### Sales and Service

Direct: +44 (0) 1424 721 667

Email: subscriptions@cbi-publishing.com



#### 2024 Cross-border Information (London) Ltd. All rights reserved.

Data and information published in African Energy is provided to Cross-border Information (CbI) by its staff and network of correspondents through extensive surveys of sources and published with the intention of being accurate. CbI cannot insure against or be held responsible for inaccuracies and assumes no liability for any loss whatsoever arising from use of such data.

No portion of this publication may be photocopied, reproduced, retransmitted, put into a computer system or otherwise redistributed without prior authorisation from Cbl.

Registered office: 4 Bank Buildings, Station Road, Hastings, East Sussex, TN34 1NG, UK

Directors: NJ Carn, E Gillespie, JD Hamilton, JJ Marks

#### **FOCUS**

10003	
MAURITANIA: Gas, hydrogen and steel excite investors MAURITANIA: Complex ties with Algeria MAPS: Mauritania's energy infrastructure MAPS: Mauritania's solar and wind potential SENEGAL: GTA focus central to president's Mauritania trip SENEGAL: New first gas production target for Y-T field MAURITANIA: Energy co-operation deal with Saudi Arabia	1 4 5 6 7 7
LIVE DATA SENEGAL: Renewables and gas focus, as HFO phased-out CHARTS: Senegal's energy mix 2018, 2023 and 2028	9
POWER GUINEA: LNG terminal approval and 1.8GW power deal MOROCCO: Engie seeks buyer for Safi coal stake ETHIOPIA: Corbetti plans geothermal drilling, feasibility SOUTH AFRICA: Financial close for REIPPP6 solar plants REGION: Transmission needs new financing models NAMIBIA: World Bank loan for power transmission	10 10 10 10 11 11
COMMERCIAL AND INDUSTRIAL MADAGASCAR: Rio Tinto's solar plant commissioned ZIMBABWE: Gas deal for Eureka gold mine's power supply ZIMBABWE: Sabi Star's coal-fired plant nears completion	11 11 11
UPSTREAM OIL AND GAS NIGERIA: Upstream M&A deals show signs of progress ANGOLA: Afentra gets approval for Azule offshore stakes NAMIBIA: Azule's entry, Chevron to explore Walvis Basin MOROCCO: UK-listed Indies push ahead with gas drilling REGION: SDX offloads Egypt assets, focuses on Morocco	12 12 12 12 12
DOWNSTREAM HYDROCARBONS AND MARKETS NIGERIA: Dangote refinery cuts prices, starts exports	12
WEST AFRICA: Benin blocks Niger oil exports ZIMBABWE: Latest currency is bound to fail, say critics REGION: Dubai-based Alpha MBM's cryptocurrency plan SOUTH SUDAN: Doubts aplenty over '\$12bn' deal	13 13 13 13
AGENDA EVENTS: What's on around the region AFRICAN ENERGY VIEW	14

AFRICA: Gas supply risks highlight baseload challenge

15

#### Mauritania excites investors

**CONTINUED FROM PAGE 1** 

Investors thus seem reassured that Ghazouani has a strong electoral lead, despite what one analyst called "a sincere challenge from the opposition".

Polling is generally likely to be fair, even if the balance of forces is nowhere near equal. The president's El Insaf (Equity) party last year took 107 seats (60.8% of the total) in legislative elections. The runner-up, conservative Islamist party the National Rally for Reform and Development (Al-Tajammu Al-Waṭani Lil Iṣlaḥ Wal Tanmiya or Tewassoul), won just 11 seats (6.25%).

Pulling the levers of power, the presidency enjoys strong support in the media, where criticism of the executive remains taboo. Analysts thus think it more likely than not that Ghazouani will win an outright majority in the first round.

Delivery of GTA Phase I is a bonus, with production expected to start this year – although exactly when the delayed project comes on stream remains in question (*AE* 502, 500, 496, 492).

GTA is operated by British major BP (with 56% of the project's equity), with United States-based independent Kosmos Energy (27%), while national oil companies (NOCs) Société des Pétroles du Sénégal (Petrosen, with 10%) and Société Mauritanienne des Hydrocarbures et de Patrimoine Minier (SMHPM, 7%) hold the remaining equity.

A second phase of GTA is under early development that will further enlarge the project, which is export-focused but also includes domestic supply obligations to bring gas onshore for gas-to-power (GTP) and other developments.

GTA delays have largely been outside the control of BP and Kosmos, but both partner governments have been

frustrated that production is not already under way, and at what they see as slow progress for GTA Phase II.

Kosmos chief executive Andy Inglis said in February that there had been "a real push" from Nouakchott and Dakar for a decision on the GTA Phase II concept – and to accelerate its development (*AE* 479).

Strict Covid-19 lockdowns delayed construction of the floating production, storage and offloading (FPSO) in Qidong, China, while Typhoon Muifa in September 2022 caused damage that necessitated repairs in Singapore (AE 477). The vessel was then damaged on its voyage to the GTA site last year, meaning more repairs, this time in Tenerife (AE 495).

The FPSO has departed Tenerife and its long-awaited arrival on-site at the GTA hub is finally imminent.

Despite extenuating circumstances around GTA delays, the governments in Nouakchott and Dakar have held talks over reassessing terms for LNG scheme and other upstream developments.

Pressure for a new deal can only increase with the election in Senegal of the more radical President Bassirou Diomaye Faye and his Parti Africain du Sénégal, pour l'Ethique et la Fraternité (Pastef les Patriotes) – although industry sources expect rhetoric may prove more militant than actions are likely to prove, as all sides need to see revenues flowing.

#### A shift in regional relations

These developments come amid a period of shifting alignments in north-west Africa, which have been underlined by two recent diplomatic encounters: Diomaye Faye's decision to make *Nouakchott the destination for his first official foreign trip* in mid-April – ending a long tradition of Senegalese leaders starting their mandates with talks in France – and Ghazouani's late February trip to Algiers,

## Not sure if you have a login for our website?

If your company has a subscription to *African Energy* you can access our full range of newsletter resources online – including full text articles, maps, graphics, webinar recordings and every issue we have published since Issue 1 in 1998.

#### Request a login reminder



which signalled what Algeria took to be 'a multi-faceted rapprochement'.

Having won a major victory in Senegal's 24 March election, Faye met Ghazouani in Nouakchott on 18 April (*AE 503*). Senegal's new president chose to ignore the unpopular former colonial power for his inaugural visit and instead looked to promote a new approach with his northern neighbour and GTA partner (*AE 505*).

President Emmanuel Macron has invited Faye to visit Paris, but no response has yet been forthcoming – although the two heads of state did speak by phone soon after Diomaye's election – which reflects the recent waning of France's regional influence, as symbolised by its military withdrawal from the three military-ruled Sahel states, along with widespread antipathy among younger generations of West Africans to Paris' perceived post-colonial meddling and now largely-defunct *françafrique* system of clandestine influence (*AE 499, 489, 407*).

The new Dakar administration's pan-Africanist agenda was underscored in Mauritania as Ghazouani holds the ceremonial, but symbolically important rotating African Union chairmanship. Faye went on to visit Gambia, and promised to visit Guinea, Guinea-Bissau and Mali in the near term.

Much closer to home, one of Pastef's key election pledges was to renegotiate contracts that international investors in the hydrocarbons and mining sectors signed with his predecessor Macky Sall's administration (*AE 502*).

African Energy's soundings suggest that this is on the agenda for several projects, if not immediately (see Senegal's Y-T could reach first production in 2027).

A key agenda item in Nouakchott was whether the two governments should opt to renegotiate terms for GTA. This was of concern even before Pastef's election victory, with GTA Phase I running significantly over budget, incurring considerable additional costs for SMHPM and Petrosen.

The mid-April talks did not reach a firm conclusion on GTA renegotiations, but served to establish a dialogue on the matter, *African Energy* was told.

During the tête-à-tête, agreement was reached that a series of studies, leveraging "technical, legal and financial expertise", would determine a joint negotiating position to take to the GTA investors.

The Mauritanian government "had, until now, never questioned the contracts signed with BP and Kosmos", a source with knowledge of the deliberations said.

Nouakchott had, however, previously instigated a request to audit the GTA cost increases, to which Dakar had also put its name.

## Mauritania navigates a web of complex ties with Algeria

President Mohammed Ould Cheikh Mohammed Ahmed El Ghazouani's meeting with Algerian President Abdelmajid Tebboune on 22 February, at the airport in Tindouf, south-western Algeria, was replete with symbolism. Not only did the leaders formally inaugurate fixed border posts on the 460km bilateral frontier, a roster of projects were announced that signal of a wider intensification of relations.

Some of these schemes could help Algeria to outflank its bitter regional rival Morocco by increasing its business further south. *Read more* 

Industry sentiment, *African Energy* is told, is that adjustments to equity interests held by the NOCs will not be substantive and that both countries' governments are keen to remain attractive investment destinations.

#### BP leaves but BirAllah may still proceed

When it does finally dispatch its first cargo, GTA should be transformative for Mauritania and Senegal. Yet previous enthusiasm over Mauritania's offshore prospects has not always translated into tangible developments.

Hopes were high for the 50tcf offshore BirAllah gas field, also operated by BP with Dallas-headquartered Kosmos the other international investor, with a final investment decision (FID) previously expected in 2025 (*AE 470*).

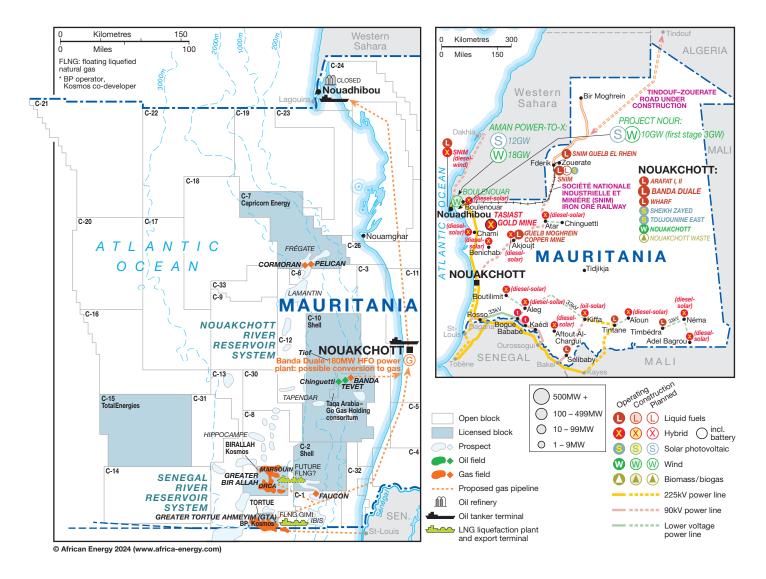
However, on 7 May BP chief executive Murray Auchinloss confirmed rumours that the United Kingdom-based major had decided to relinquish the asset by allowing its production-sharing contracts (PSCs) to lapse.

Industry sources said BP's departure decision was based on project economics and its own internal resources, rather than being informed by a view on country or political risk.

The news followed disappointing results last November from Shell's C10 wildcat, which the UK-headquartered major plugged after disappointing results. Shell still plans exploration at the nearby C2 (AE 496).

All is not lost for BirAllah, however, with Kosmos indicating that it could step in.

Chief executive Andy Inglis told investors on 7 May that the Houston-based, New York- and London Stock Exchange-listed indie was "in discussions with the Mauritanian government around how we can help them progress the development of BirAllah that they're keen to move it forward".



Inglis adding that Kosmos believed it had "both the subsurface knowledge and the concepts that will enable it to be an attractive project."

Such a play would follow Senegal's 25tcf offshore Yakaar-Teranga (Y-T) field, which BP relinquished last year, leaving Kosmos as 90% equity holder and operator (AE 495). In partnership with Petrosen, which will take an equal project stake, Kosmos is now advancing the Y-T development and honing a final concept that will add an LNG export component to underpin domestic supply.

Inglis said on 7 May that Kosmos had extended its Y-T licence by two years, noting that developing that gas resource was attractive given its "negligible CO<sub>2</sub>" and proximity to LNG-hungry Europe. A considerable amount of pre-front-end engineering and design work had also been carried out for Y-T, he said.

A similar development approach to Y-T could be pursued for BirAllah in partnership with SMHPM, Inglis added,

saying that "both governments are anxious to enable the development of their gas resources".

African Energy understands that Kosmos' proactive approach to developing BirAllah and Y-T – and its intended equity structure of bringing the NOCs in as equal partners – has been warmly welcomed in both Nouakchott and Dakar.

In other developments in the Mauritanian upstream, an Egyptian consortium led by Taqa Arabia in April signed a \$1bn exploration and production (E&P) deal for the offshore Banda and Tevet fields.

According to Nouakchott, Banda and Tevet hold 2.2tcf of natural gas. They have long been earmarked as a feedstock source for the 180MW dual-fuel Banda Duale facility and its 120MW combined cycle gas turbine (CCGT) expansion (AE 503).

Developing GTP capacity is a strategic goal for Nouakchott, which last year commissioned a study for a pipeline to bring 300 mcf/d onshore from GTA and BirAllah (AE 491).

#### 'Green steel' magnet?

Away from the carbon economy, world-scale levels of solar irradiation and wind speeds, along with huge tracts of available land, have promoted Mauritania to the status of a nascent significant power-to-X (P2X) player, with developers of  $\mathrm{GH}_2$  projects especially focused upon the country.

Prospective projects include a joint venture between London AIM-listed Chariot and a subsidiary of French major TotalEnergies, which submitted its feasibility study to the government in March (*AE 502*).

An energy co-operation memorandum of understanding (MoU) was signed on 29 April with Riyadh; Saudi Arabia is one of only two countries (the other being Norway) where a GH2 project has reached FID to date (AE 505).

There is strong expectation that at least one of four interested consortia will bid to develop a GH<sub>2</sub> project that could then be tied to a 'green steel' offtaker – exploiting both P2X potential and the longstanding iron ore industry, led by the parastatal Société Nationale Industrielle et Minière (Snim), which is historically by far Mauritania's biggest company.

Mauritania is second only to South Africa in terms of African iron ore production, according to 2024 data from the United States Geological Survey (USGS), but there remains scope to expand production, which has fallen over the last decade.

The impetus for this is Mauritania's substantial quantities of high-grade (60-65%) hematitic ores, which require fewer energy inputs to make steel relative to other, lower-grade sources.

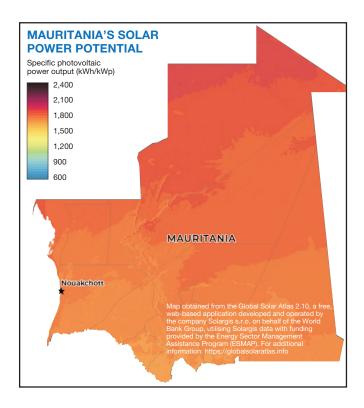
Production from Mauritania would very likely be classed as 'green steel', particularly if RE-powered electric arc furnaces are used. This is an unsung, but important, part of the energy transition, with steelmaking though to account for around 10% of all global carbon emissions.

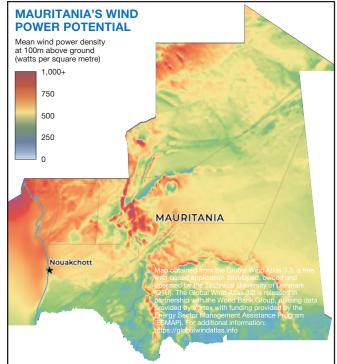
Such a 'green steel' project in Mauritania would likely see the construction of a steel mill near to a  ${\rm GH_2}$  plant, which would be situated either near the Zouérate mines in the north-east or in Nouadhibou, where the 700km railway servicing Snim's operations terminates at the port.

Nouadhibou benefits from a much stronger wind resource than inland, which a prospective  $GH_2$  plant would be expected to combine with solar PV to compensate for the intermittency of each source.

One potential difficulty with siting substantial infrastructure in Nouadhibou is that half the peninsula lies in the disputed Western Sahara. While Mauritania isn't a party to the enduring conflict, and the security risk is thought by experts to be low, the proximity does impose a hard limit on the scale of infrastructure development.

Rarely has Mauritania – a vast country, with 1m km² of land but a population of just 4.3m – been the subject of such degrees of international interest.

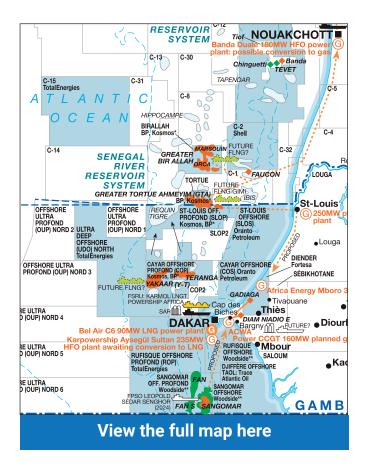




## Joint gas field, new regional focus central to Senegalese president's Mauritania visit

New Senegalese President Bassirou Diomaye Faye pointedly opted for Nouakchott as the destination for his first official foreign trip, ending a long tradition of starting in France and underlining his Pastef party's pan-African agenda. Investors will be watching closely as discussions with Mauritanian President Mohammed Ghazouani centred around the potential for renegotiating the joint Greater Tortue Ahmeyim LNG development's terms, writes Waly Dione Faye.

Read the full article - published on 29 April 2024.



### Mauritania signs energy co-operation deal with Saudi Arabia

Mauritania's government has signed a memorandum of understanding (MoU) with Saudi Arabia to co-operate in the electricity, renewable energy and clean hydrogen sectors. The MoU was signed by petroleum, minerals and energy minister Nani Ould Chrougha and Saudi energy minister Prince Abdelaziz Bin Salman Al-Saud, on the sidelines of a World Economic Forum (WEF) meeting in Riyadh on 29 April. *Read more* 

#### **FURTHER READING**

- Diomaye Faye's victory signals a new-look
   Senegal with wider regional implications
   Apr 2024
- Mauritania signs \$1bn deal with Egyptian consortium to develop offshore gas – Apr 2024
- Mauritania/Senegal: First Greater Tortue
   Ahmeyim (GTA) LNG shipments delayed again
   Mar 2024
- Start date at Senegal's Sangomar development edges closer, as production vessel arrives on-site – Feb 2024
- Mauritania-Senegal: GTA and Sangomar developers eye new production start dates
   Nov 2023
- Senegal: Kosmos takes Yakaar-Teranga operated stake, outlines LNG plan – Nov 2023

## New first gas production goal for Y-T field as shareholdings shake out

Operator Kosmos Energy has set a new goal for first gas production at Senegal's offshore Yakaar-Teranga (Y-T) field, where a shakeout in equity is expected to give state company Petrosen a bigger role.

Meanwhile a source has told *African Energy* that any renegotiation of contract terms for the Sangomar development is expected to be initiated after the 100,000 b/d field starts first production. *Read more* 

7,711+

252,296

6,306+

**Projects** 

Installed capacity (MW) as of end-2023

**Organisations** 

#### **Latest installed capacity (MW)**

**Operating** 

Construction

Pipeline (2024-2028)

258,157

39,983

54,798

The past week on Live Data\*

**Projects updated** 

Capacity added

Pipeline added (2024-2028)

21

1,445

812

## Discover hidden power trends, patterns, and insights

We've been working hard on a new way for you to discover hidden trends, patterns, and insights that will help transform your company's understanding of Africa's power sector.

The *African Energy Live Data* API gives you an additional flexible and scalable option to interrogate the data behind the more than 7,500 power projects and plants in our database.

Real-Time Updates: With the Live Data API you'll have access to the most up-to-date information straight from our platform for your data analysis. No more downloading endless excels.

Deeper insights: The API allows you to delve deeper into our data to uncover hidden trends, patterns, and correlations, giving you a greater understanding of projects and the competitive environment and allowing you to build more informed business development strategies.

Seamless Integration: The API can enhance your own large scale data analysis systems. Whether you're using Excel, Python, PowerBI, or any other data analysis tool, the Live Data API seamlessly integrates into your existing

workflows. This means you can continue using your preferred tools while tapping into Live Data.

#### Find out more

Contact us to see an in-person demo. We can answer any questions you may have and discuss how the platform can be best used to help your business.

Book a 30 minute platform demo

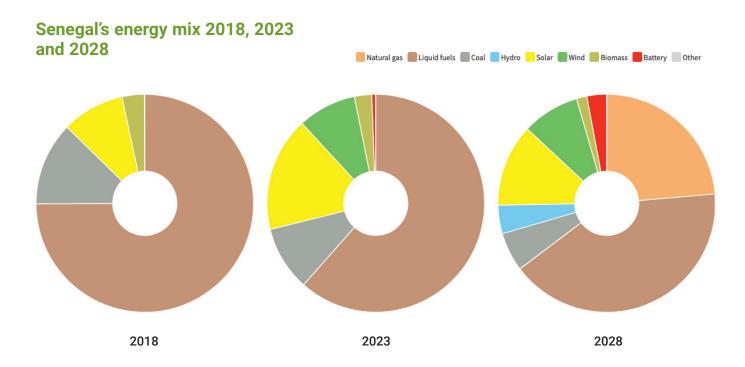


<sup>\*</sup>ending 10 May 2024

## Senegal pushes forward with renewables and gas projects, in search of HFO phase-out

Recently-elected President Faye has vowed to boost on-grid renewable energy capacity and phase out the use of expensive liquid fuels for power generation. Analysis from *African Energy Live Data* shows this is a continuation of a trend set by his predecessor Macky Sall. However, the phasing out of HFO also relies on the country tapping into its substantial gas reserves and Faye's pledge to renegotiate hydrocarbons contracts makes some nervous.

Read the full analysis



View this and more Senegal graphics online

#### **Selected Senegal projects**

- Aksa Saint Louis Gas
- Kael Solar PV
- Kahone Solar PV
- KIAT Battery
- Karpowership Ayşegül Sultan HFO, LNG
- Malicounda HFO

- Malicounda Solar PV
- NEA Kolda Solar PV, Battery
- Senergy II Bokhol Solar PV
- Taïba N'Diaye Wind
- WAE Cap des Biches CCGT
- Walo Solar PV, Battery

View all projects

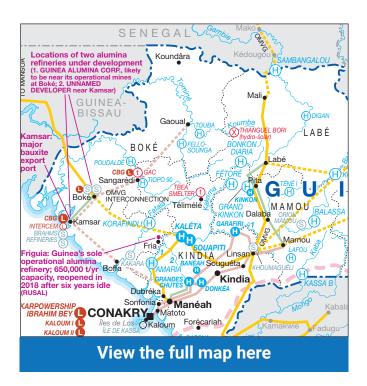
Subscribers to African Energy Live Data have immediate access to all project records and detailed underlying aggregated data. To access this information please follow the links or contact Ajay Ubhi for support.

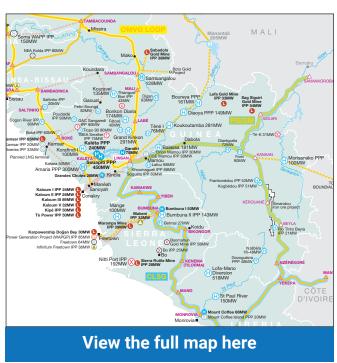
If you are not a Live Data subscriber and need access to project data referenced in this article please contact *Alex Wark*.

# Progress for LNG supplier as Guinea's parliament approves terminal and 1.8GW power deal

Approval from the interim parliament in Conakry for an unprecedented-for-Guinea liquefied natural gas (LNG) import terminal and gas-to-power plant could be the first step towards meeting a predicted huge mining-driven increase in electricity demand. The project's scale has raised eyebrows, but could prove transformative if it goes ahead, writes Marc Howard.

Read the full article - published on 2 May 2024.





#### **MOROCCO**

#### Engie seeks buyer for stake in Safi coal-fired plant

French energy giant Engie is aiming to offload a minority stake in the 1,250MW Safi coal-fired plant as part of a wider shift away from coal and towards renewable energy.

Read more

#### **ETHIOPIA**

#### Corbetti set for geothermal drilling after extending PPA

Following a two-year extension to its power purchase agreement (PPA) with Ethiopian Electric Power, Corbetti Geothermal is now planning to carry out drilling and a feasibility study on its Oromi-based project. *Read more* 

#### **SOUTH AFRICA**

#### First financial close for REIPPP6 solar plants

Two solar PV plants have become the first projects under the sixth bid window of the renewable energy IPP procurement programme to reach commercial close and sign project implementation agreements. *Read more* 

### South African gas supply risks highlight transition's baseload challenge

South Africa will need to secure new sources of feedstock if it is to develop the gas-to-power projects that many see as essential to provide baseload for the renewable energy sector that African Energy Live Data shows is gaining momentum. Read the African Energy View for more

## Fresh financing models sought to energise African transmission investments

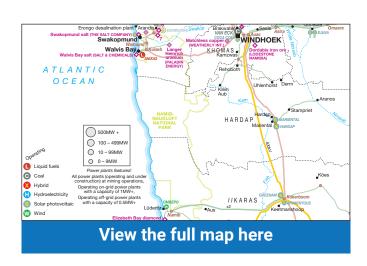
While apparently much-increased institutional appetite to support independent transmission projects and power pools is to be welcomed, participants at *African Energy's AIX: Energy in Transition* meeting heard that a much greater volume and variety of financing models were urgently required to support the roll-out of transmission infrastructure around Africa, to support domestic investments and cross-border interconnections.

Read the full article - published on 12 May 2024.

## World Bank loan for Namibia's key power transmission project

The World Bank has approved its first energy project loan for Namibia, to be deployed to finance grid expansion and support the increased integration of renewable energy (RE).

The project will be implemented by state utility NamPower and includes the second Auas-Kokerboom transmission line, a utility-scale battery energy storage system (Bess) and technical assistance to help NamPower develop bankable RE projects. *Read more* 



#### TRANSMISSION - FURTHER READING

- Major boost for power trade as West African networks interconnect in Guinea – Apr 2024
- SAPP appoints Climate Fund Managers to free up power interconnector bottlenecks – Mar 2024
- Namibia's electricity export ambitions hit a major snag – Feb 2024
- Emerging Continental Master Plan sets agenda for Africa-wide electricity reform – Jan 2024
- Power pool reforms offer support for Continental Master Plan goals – Jan 2024
- African Union's power masterplan shows extent of access and financing gaps – Sep 2023

#### **COMMERCIAL AND INDUSTRIAL**

#### **MADAGASCAR**

### Rio Tinto commissions first stage of 32MW renewable energy plant

Inauguration of the 8MW solar PV plant at Fort Dauphin ilmenite mine marks the official roll-out of a pioneering commercial and industrial (C&I) project, which also includes wind power and battery storage. It is expected that the renewable energy capacity will provide 60% of the mine's electricity needs; power has previously been provided by diesel gensets. *Read more* 

#### **ZIMBABWE**

#### Invictus signs gas deal to power Eureka gold mine

Invictus Energy has signed an agreement with gold miner Dallaglio Investments and manufacturer Himoinsa to develop a gas-fired power plant to supply the Eureka gold mine, using gas from the Cabora Bassa Basin. *Read more* 

#### Sabi Star's coal-fired plant nears completion

Construction is nearly complete on a 15MW coal-fired plant to supply power to Sabi Star's lithium mine in Buhera district. *African Energy* takes a closer look at one of Zimbabwe's three biggest lithium projects. *Read more* 

## Signs of progress in Nigeria's upstream as major M&A deals inch forward

There are signs of progress on two multi-billion dollar asset sales to local players by international majors which, coupled with sector reforms unveiled in March and a new licensing round launched in late April, may give rise to guarded optimism in the upstream sector, despite perennial issues around security and theft, writes James Gavin.

Read the full article - published on 9 May 2024.

#### **ANGOLA**

### Afentra gains approval to acquire Azule Energy's offshore stakes

Africa-focused indie Afentra has gained approval from the Angolan government to buy a 12% non-operating interest in Block 3/05 and a 16% non-operating interest in Block 3/05A from the BP/Eni joint venture Azule Energy. *Read more* 

#### **NAMIBIA**

### BP and Eni's Azule JV strikes first international deal, taking Orange Basin block stake

BP/Eni joint venture Azule Energy – which until now has focused entirely on Angola – has taken a 42.5% stake in an offshore block in Nambia's Orange Basin, close to the giant Graff and Venus discoveries. The farm-in deal includes an option for Azule to become operator in the future.

#### Read more

#### Chevron signs up to explore Namibia's Walvis Basin

National Petroleum Corporation of Namibia (Namcor) has signed an agreement with Chevron for the offshore PEL 82 licence area. Namibia is hoping the deal could encourage more majors to come into the Walvis Basin, in the hope of replicating the Orange Basin's exploration success further south. *Read more* 

#### **MOROCCO**

### UK-listed indies push ahead with drilling in search for more gas

Sound Energy has applied to enter the Anoual project's second phase, which includes drilling an initial exploration well, while two other UK-listed indies have also been progressing their drilling campaigns with Chariot starting to drill a well on its Loukos onshore licence and SDX preparing to sidetrack a recently completed well in pursuit of a gas formation. *Read more* 

#### **NORTH AFRICA**

### SDX Energy offloads Egypt assets to focus on Moroccan operations

SDX Energy will receive \$6.6m for its stakes in West Gharib blocks G and H. A deal to sell its other Egyptian asset, South Disouq, is still the subject of negotiations. The Egypt exit will allow the London AIM-listed firm to focus on its operations in Morocco. *Read more* 

#### **DOWNSTREAM HYDROCARBONS**

#### **NIGERIA**

### Dangote refinery cuts fuel prices and starts exports to Europe

Nigeria's 650,000 b/d Dangote refinery is gradually ramping up its operations, with diesel supplies to the local market starting in March and exports beginning the following month. However, there have been more reports of teething troubles, with one crude cargo said to have been held offshore for a month over a payment dispute.

#### Read more

#### **REGION**

### South African gas supply risks highlight transition's baseload challenge

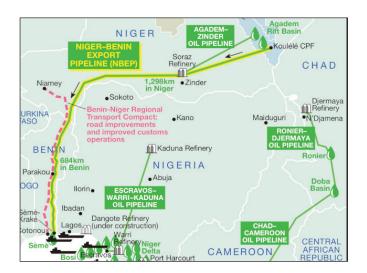
A major source of natural gas for South Africa could be constrained as soon as 2025, with declining reserves at Mozambique's Pande and Temane fields potentially leading to supply shortages. South Africa will need to secure new sources of feedstock if it is to develop the gas-to-power projects that many see as essential to provide baseload for the renewable energy sector that African Energy Live Data shows is gaining momentum.

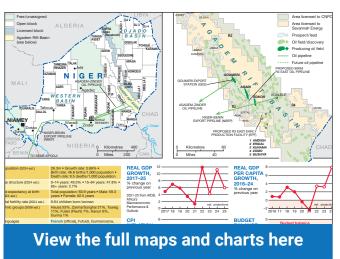
Read the full African Energy View

## Benin blocks Niger oil exports weeks after Niamey's new \$400m Chinese deal

President Patrice Talon's sudden announcement that Benin would block the lifting of oil cargoes from the Niger-Benin Export Pipeline was a shock move that may be remedied swiftly but nevertheless point to continuing pressures on Niamey, since the military regime opted to end alliances with the US and France in favour of Russia and special friend China, write Marc Howard and Our Cotonou Correspondent.

Read the full article - published on 12 May 2024.





## Zimbabwe's latest gold-backed currency is bound to fail, say critics

The unveiling of a new gold-backed currency has been met with a sceptical reception, reflecting a lack of public confidence and issues around non-convertibility the authorities will have to overcome if the ZiG is to avoid the fate of the Zimbabwe's other monetary failures over the past two decades, writes Tonderayi Mukeredzi in Harare.

Read the full article - published on 12 May 2024.

## Doubts aplenty as South Sudan strikes '\$12bn' deal with Dubai-based sheikh

A number of reports point to the cash-strapped government of South Sudan agreeing to borrow up to \$12.8bn from a Dubai-based company owned by a junior member of Abu Dhabi's ruling family, with the debt to be repaid in discounted oil shipments over 20 years.

But questions are mounting about what could be, in an ideal world, a transformational deal. *Read more* 

## Dubai's Alpha MBM sets out plans to launch cryptocurrencies in Africa

Dubai Sheikh Mohammed Bin Maktoum Al-Maktoum's Alpha MBM Investments has aligned with Abu Dhabibased Venom Blockchain to develop central bank digital currencies and stablecoins in Uganda, Somalia and CAR, as the ambitious junior member of Dubai's ruling family and interests in Abu Dhabi move further into African business. *Read more* 

15-16 May: German-African Energy Forum, Hamburg

https://www.energyafrica.de/en/registration

25-28 June: Africa Energy Forum, Barcelona

The 26th annual meeting. Website

30 June-4 July: NOG Energy Week, Abuja

www.nogenergyweek.com

9-11 September: World Utilities Congress

www.worldutilitiescongress.com

17-20 September: Gastech, Houston

https://www.gastechevent.com

29-30 October: AIX: Power & Renewables, London

An African Energy event at RSA House. Website









## Algeria's multi-gigawatt solar opportunity – the routes and the risks

22 May 2024, 12.00 BST (GMT +1), Online, Zoom

Algeria has taken the first step in a programme to add 15GW of solar capacity by 2035. Further procurement rounds are scheduled, meaning that businesses which establish themselves in the market promptly will have multiple opportunities to secure business.

Join African Energy chairman Jon Marks, managing director John Hamilton and Anzul director Oualid Khelifi for a breakdown of the context, the possibilities, the risks, and how to address them. Register your free place









# Africa Investment Exchange Power & Renewables

RSA House | 29-30 October 2024

AIX Power & Renewables is one of the meeting places of choice for Africa's power sector stakeholders, including leading private and public sector investors, African officials and project developers.

Sponsored by





Produced by







#### Gas supply risks highlight energy transition's baseload challenge

South Africa faces a potential natural gas supply crunch, just as it is planning to increase the role of gas-to-power (GTP) schemes to offer a cleaner alternative to coal and provide the baseload essential to underpin the expansion of renewable energy (RE).

Warnings that production from the Pande and Temane gas fields in neighbouring Mozambique could soon start falling due to declining reserves pose a significant risk to the gas market and the GTP schemes that are expected to play a significant role in South Africa's transition to a more sustainable fuel mix.

The signals are mixed. Sasol has been working to maximise its reserves: last July, following drilling that increased its well inventory from 19 to 24, the South African operator commissioned a new gas facility on its Mozambican production-sharing agreement area to supply the *Central Termica de Temane (CTT)* venture and Sasol South Africa. Sasol last year also reported a gas discovery in its PT5-C acreage, adjacent to Pande and Temane in southern Mozambique.

Johannesburg Stock Exchange (JSE)-listed Sasol, with partners Globeleq and state utility Electricidade de Moçambique (EdM), is making considerable progress on the 450MW Temane Phase 2 project which, as well as providing big new gas-fired generation capacity, would double the transmission system from the plant and could also involve a carbon capture and storage (CCS) element.

Questions about whether gas output can meet regional demand in Mozambique and beyond – including from the huge northern Mozambique LNG schemes (*AE 500*) – add to the pressures on gas supply at a time when South Africa, Nigeria and other producing countries are seeking to increase their domestic gas use and other consumers (including commercial clients in big minerals producing countries *like Guinea*) are planning to import LNG.

Another factor is the need to compete on pricing with export-oriented projects that sell gas into more lucrative markets like Japan and Europe. There are also concerns that local business environments too often remain inimical to GTP and other projects that seek to monetise domestic gas resources.

African Energy's recent Africa Investment Exchange (AIX): Energy in Transition event, held in London on 25-26 April, heard that Nigeria remained a glaring example of aboveground bottlenecks to investment – despite positive developments such as the passing of the 2021 Petroleum Industry Act (PIA), a shift towards cost-reflective tariffs and other recent reforms by President Bola Ahmed Tinubu's administration, which in March introduced further measures to encourage upstream investment.

New upstream gas projects that are focused on domestic supply, rather than exports, are still rare across the continent, although projects of varying sizes have long operated in Cameroon, Senegal and Tanzania.

Another example is likely to be Morocco's Anchois field development, which is expected to supply state utility Office National de l'Electricité et de l'Eau (Onee)'s strategically important *Tahaddart* and *Aïn Beni Mathar* combined cycle plants and, potentially, future units across the kingdom (*AE* 497).

Anchois' developers, operator London Stock Exchange- and Tel Aviv-listed Energean and London AIM-listed Chariot, are working in a business environment seen as competitive but investor-friendly (*AE 501*). Other international oil companies (IOCs) such as AIM-listed Sound Energy also plan to supply Onee, while the Moroccan government has revived plans to build one or more LNG regasification plants, as well as promoting its most ambitious long-term goal: the Nigeria-Morocco gas pipeline development (*AE 504, 464*).

#### Live Data highlights gas' strategic role

Data presented by *African Energy Live Data* to the *AIX: Energy in Transition* event showed the important role of natural gas: projects adding nearly 1.7GW to the continent's power generation mix from 2024-29 were announced in Q1 2024. That is though eclipsed by the 4.3GW of solar PV capacity that *Live Data* expects to be added (a figure which could grow substantially larger, given the shorter lead teams involved in developing solar projects).

Overall, the signs are that, unless there is unexpected upturn in investment, natural gas use will remain limited in providing baseload power over the next five years and probably beyond. This is despite the robust arguments about the essential role of gas as a 'transition fuel' that will allow African economies to replace dirtier fuels like diesel and coal and counter the environmental and health costs of burning wood for cooking.

The *Live Data* 2024-29 project pipeline (see below) shows a diminishing number of gas-fired generation projects over the period.

Live Data also shows how gas is still a major contributor to the energy mix in South Africa and some other countries. In big gas producers like Algeria, it is the dominant fuel.

The limited number of GTP developments are not due to governments' lack of enthusiasm for exploiting their gas reserves, but rather the impact of western development finance institutions and other investors pulling back from funding projects. Domestic policy failures also play a role,

#### **African Energy view**

with several gas procurement programmes – including South Africa's LNG import schemes – having stalled.

#### Conflicting signals amid a range of options

Demand for gas in Mozambique and South Africa is rising. The Pande and Temane fields have supplied gas to South Africa for 20 years through the 865km Republic of Mozambique Pipeline Investments Company (Rompco) pipeline, accounting for around half of Mozambique's total gas output (AE 446).

However, those fields will soon be in decline, according to one gas expert who spoke at *AIX: Energy in Transition*, although the timing of any slowdown is hard to predict. "That is going to happen," the expert said. "It might happen in 2024, might happen in 2028."

This implies the need for a significant shift in the South African gas market, away from domination by Sasol to a more diverse supply mix, in which other international sources will need to be tapped, including LNG imports.

"It used to be about local supply," the expert told *AIX*. "It will be about international supply. In the short-term, international LNG will be most credible source of material new supply to [meet] existing demand and to underpin gas-to-power".

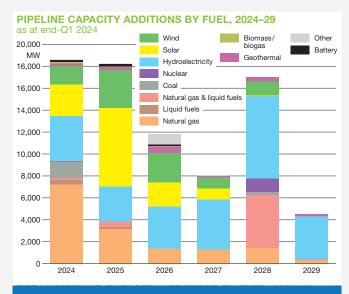
One option could be to take advantage of the northern Mozambique export LNG projects. Further work by Sasol in the Pande and Temane upstream could also provide more feedstock.

Also in Mozambique, France's TotalEnergies is expected to make a final investment decision (FID) by September on the Matola LNG import terminal, at Matola Port in Maputo province, which is aimed at supplying local and regional markets (AE 456, 405).

Mozambique's offshore Mamba gas field, which is being developed by a joint venture of Eni, ExxonMobil and China National Petroleum Company, is another possible source; first production from Mamba is expected in 2024. Meanwhile another option could emerge from gas plays in Zimbabwe, where Australian Securities Exchange-listed Invictus Energy has reported progress (AE 505, 498).

South Africa itself has several natural gas projects in the pipeline, most of which are offshore and which are assumed to have many technical challenges. French major TotalEnergies discovered two significant natural gas deposits off the coast of South Africa in 2019 and 2020, including the Brulpadda-Luiperd field, which holds an estimated 3.4tcf. The Brulpadda-Luiperd project has reached the approval stage, with FID possible later this year, in which case commercial operations could start by 2026.

Another project is the Sunbird Energy-operated Ibhubesi gas field, off the coast of Northern Cape Province in Block 2A



View full interactive charts online

within the Orange Basin. This is in the front-end engineering design phase and commercial production is expected to begin in 2025.

#### Gas can support energy transition

Like many countries in southern Africa, South Africa's energy mix is heavily reliant on coal power generation, which accounts for around 72% of total installed capacity, according to *African Energy Live Data*. Natural gas provides less than 1% of total generating capacity, with 405MW in a system whose total installed capacity is 63,797MW.

Renewable energy is predicted to account for about 30% of the generation mix by 2030, but the authorities are looking to increase the use of gas-fired plants. Advocates of this approach say GTP is a proven technology that provides dispatchable generation at scale which can complement renewable energy and help solve South Africa's electricity challenges.

Floating storage and regasification unit (FSRU) infrastructure will be a critical element in these developments, provided sufficient private investment can be mobilised – there is a consensus within the industry that the solution to South Africa's gas crunch will not come from government.

"There are private sector solutions out there that are being worked out. There is an aggregator that is well in the works, that understands the deadlines very clearly and understands the requirements, such that if you wish to attract an FSRU that FSRU needs a certain amount of scale, a certain amount of revenue certainty," one industry executive at AIX concluded.